

Notice of Allowability

Application No.

10/652,584

Examiner

Sherry L Estremsky

Applicant(s)

NAKATANI ET AL.

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed August 29, 2003.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☒ The drawings filed on 29 August 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>3-4-04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

To correct an error in the specification pointed out by the applicant in the information disclosure statement and to make the abstract comply with the requirement that it be 150 words or less, the application has been amended as follows:

on page 1, line 26, "2000-283860" was changed to --2002-283860--

the abstract was replaced in its entirety with the following:

A propelling transmission control apparatus for a working vehicle having a hydrostatic stepless transmission comprises a variable displacement type hydraulic pump (35), a change speed control mechanism (80) for converting a displacement of a control device (55) to a control displacement for varying a swash plate angle of the hydraulic pump, a fixed displacement main hydraulic motor (36) and a variable displacement auxiliary hydraulic motor (37) connected in series to the hydraulic pump. A common output shaft receives rotational output from both motors. A control piston (35) varies the swash plate angle of the auxiliary hydraulic motor, is connected to a pressure oil supply line (39) for supplying both hydraulic motors with pressure oil, and is operable to vary the swash plate angle of the auxiliary hydraulic motor (37) such that the auxiliary hydraulic motor (37) has an increased volume with a pressure increase applied to the control piston (38).

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance:

No reference nor combination of references was found which teaches a propelling transmission control apparatus for a working vehicle having a hydrostatic stepless transmission, including a variable displacement hydraulic pump, a fixed displacement main hydraulic motor, a variable displacement auxiliary hydraulic motor, and a common output shaft for receiving rotational output from both motors, wherein the swash plate angle of the hydraulic pump is changed by a change speed control mechanism, the motors are connected in series to the pump, and a control piston varies the auxiliary motor swash plate such that motor has an increased volume with a pressure increase applied to the control piston.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents show various features of propelling hydrostatic transmissions including linkages to simultaneously control engine throttle and swash plate angles, variable displacement auxiliary motors (connected in parallel), control pistons to control swash plate angles (including teaching that a pump volume increases as pressure applied to the piston decreases):

Art Unit: 3681

U. S. Patent 3,952,512 (Feller) April 1976

U. S. Patent 3,990,235 (Bauchet) November 1976

U. S. Patent 4,023,637 (Jackovich) May 1977

U. S. Patent 4,901,529 (Iino et al.) February 1990

U. S. Patent 6,508,328 (Kenyon et al.) January 2003


U. S. Patent 6,675,577 (Evans) January 2004

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherry L Estremsky whose telephone number is (703) 308-2164. The examiner can normally be reached on Tuesday and Friday from 7:30 a.m. to 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on (703) 308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SHERRY ESTREMSKY
PRIMARY EXAMINER
AU3681 9-17-04